

## Claims

[c1] An apparatus for producing co-extruded pasta from pasta ingredients and filler comprises:  
a pasta dough extruder for producing a pasta strand;  
means for converting the pasta strand into a plurality of strands;  
a plurality of co-extrusion die inserts positioned in a straight line for forming and filling the pasta strands; and,  
a single crimp/cut die for forming a predetermined pasta configuration.

[c2] An apparatus for producing co-extruded pasta in accordance with Claim 1 further including:  
a feed hopper having an input for receiving pasta ingredients and an output;  
a mixer located at the hopper output for combining the ingredients into a mixture; and, wherein the extruder comprises  
an auger screw coupled to the mixer for forming the mixture into a cylindrical strand of pasta dough.

[c3] An apparatus for producing co-extruded pasta in accordance with Claim 2 wherein the means for converting the pasta strand into a plurality of strands comprises:  
a first Y-manifold for dividing the dough strand from the extruder into two continuous strands of dough; and,  
means for subdividing the two strands of dough into four continuous strands of dough.

[c4] An apparatus for producing co-extruded pasta in accordance with Claim 1 further including:  
a plurality of adjustable metering valves to adjust the flow of dough to the co-extrusion die inserts;  
means for filling the co-extruded strands; and,  
a conveyor receiving the formed and cut pasta from the single die.

[c5] An apparatus for producing co-extruded pasta in accordance with Claim 4 further including:  
a hot water cooker receiving the formed and filled pasta from the conveyor.

[c6] An apparatus for producing co-extruded pasta in accordance with Claim 4 further including:  
a filling means having an input to receive filling and an output;  
an eight column positive displacement pump coupled to the output of the filling means, each of said independent displacement pumps servicing a co-extrusion die insert, and including eight flexible hoses of equal length joining each pump to a corresponding die insert.

[c7] An apparatus for producing co-extruded pasta in accordance with Claim 6 further including:  
the pump includes variable speed control to control the weight/volume of filling through the hoses.

[c8] An apparatus for producing co-extruded pasta in accordance with Claim 4 further including:  
a backing roller positioned adjacent the crimp/cut die between which the filled pasta dough strands drop vertically and are crimp-sealed and cut to length.

[c9] An apparatus for producing co-extruded pasta in accordance with Claim 9 wherein:  
the pasta is rigatoni.

[c10] A method for producing co-extruded pasta from pasta ingredients and a filler comprising:  
feeding the pasta ingredients to a mixer;  
mixing the ingredients and moving the mixture to an extruder;  
extruding the mixture to form a cylindrical strand of pasta dough;  
dividing the dough into a plurality of strands;  
feeding and individually metering the strand flow to a plurality of co-extrusion die inserts arranged in a straight line; and,  
crimping and cutting the co-extruded pasta strands to form a predetermined stuffed pasta configuration.

[c11] A method for producing co-extruded pasta in accordance with Claim 10 further including the steps of:

dropping the strand flow from the co-extrusion die inserts vertically downward through a crimping/cutting die;  
catching and conveying the crimped/cut pasta; and,  
passing the pasta through a hot water cooker.

[c12] A method for producing co-extruded pasta in accordance with Claim 10  
wherein:  
changing the crimping/cutting die to attain a different stuffed pasta  
configuration.